drawn from the radio base station power supply would be 250mA. Thus, it could be determined that one of the MHAs had a fault, but it would not be possible to know which MHA had a fault.

Please replace the paragraph on page 5, lines 8-12, with the following:

In another embodiment, a method of transmitting a communication signal between a radio base station and a radiation element includes receiving an input signal, then extracting a data signal from the input signal that includes values representing operating parameter settings for devices at the radiation element, and producing an output signal for each device that transfers the operating parameter setting to the device.

Please replace the paragraph on page 6, lines 1-6, with the following:

In another embodiment, an apparatus for transmitting a communication signal between a radio base station and a radiation element includes a bias tee configured to receive an input signal, and a controller configured to extract a data signal from the input signal that includes values representing operating parameter settings for devices at the radiation element and to produce an output signal for each device that transfers the operating parameter setting to the device.

Please replace the paragraph on page 11, lines 7-10, with the following:

The tower intelligent multiplexer receives the combined signal. The data signal, including the values representing operating parameter settings for devices at the radiation element, is extracted from the received signal. An output signal is produced that transfers the operating parameter settings to the device.

Please replace the paragraph on page 12, lines 6-11, with the following:

Figure 5 is a block diagram of one embodiment of intelligent multiplexers in accordance with the invention. The base unit intelligent multiplexer 360 receives communication channel signals from a plurality of communication channels. For example, in Figure 4 the base unit intelligent multiplexer 360 receives three (3) communication channel signals combined with their corresponding monitoring signals: A a UMTS signal; B a GSM 1800 signal; and C a GSM 900 signal.

Please replace the paragraphs on page 14, lines 1-16, with the following:

The equipment monitoring unit 458 monitors the operational state of devices at the radiation element. For example, the equipment monitoring unit 458 may monitor the current drawn from a power supply 466 and used to power a device at the radiation element, such as a MHA. The equipment monitoring unit 458 communicates a signal to the controller 456 indicating the value of the monitored signal for each device that is being monitored. The controller 456 formats the values and passes them to the modem 450 for transmission to the base unit intelligent multiplexer 360.

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In the base unit intelligent multiplexer 360, the communication channel signals are combined and their corresponding monitor signals are routed to the load simulator 410. The controller 414 receives a transmission from tower intelligent multiplexer 368 and extracts the data signal from the input signal received from the tower intelligent multiplexer 368 that contains values indicating operating parameter settings for devices at the radiation element. The controller 414, in response to the values received, produces a status signal for each device and communicates this status signal to the load simulator 410. The load simulator, using the status signal, simulates a feedback signal for each device.

Please replace the paragraph on page 17, lines 8-18, with the following:

Figure 5 also shows a universal antenna control interface 550. The universal antenna control interface 550 is in communication with the tower controller 456. The universal antenna control interface 550 is also in communication with equipment located at one or more radiation elements. The universal antenna control interface 550 may receive commands and control signals from the controller 456 and modify operating parameters, as well as monitor parameters, of equipment at a radiation element. For example, the universal antenna control interface may control and monitor the position of antenna tilt equipment, monitoring the voltage standing wave ratio (VSWR), and temperature of various pieces of equipment. Use of intelligent multiplexers supports the control and monitoring of equipment located at a radiation element over the same single feed cable that communication signals are transmitted.

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